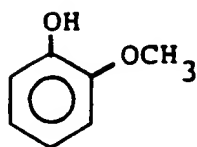


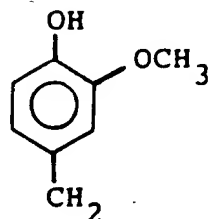
PHENOL  $C_6H_5OH$

FIG. 1



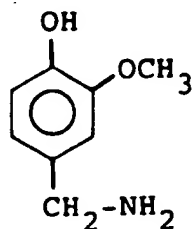
ORTHO-METHOXYPHENOL  $CH_3OC_6H_4OH$

FIG. 2



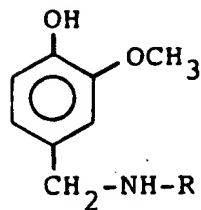
VANILLYL  $(CH_3O)(OH)C_6H_3-CH_2$

FIG. 3



3-METHOXY-4-HYDROXYBENZYLAMINE  $(\text{CH}_3\text{O})(\text{OH})\text{C}_6\text{H}_3-\text{CH}_2-\text{NH}_2$

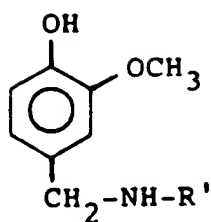
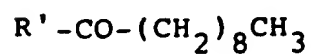
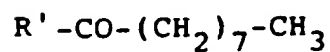
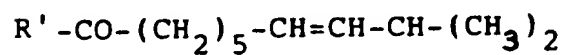
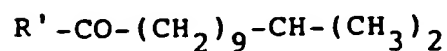
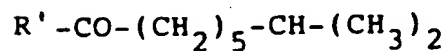
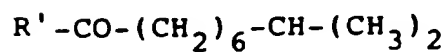
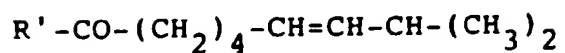
FIG. 4



where R is an organic hydrocarbon group

VANILLYLAMIDE  $(\text{CH}_3\text{O})(\text{OH})\text{C}_6\text{H}_3-\text{CH}_2-\text{NH}-\text{R}$

FIG. 5

STRUCTURAL FORMULACAPSAICINOID

CAPSAICIN

DIHYDROCAPSAICIN

NORDIHYDROCAPSAICIN

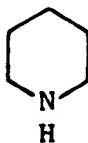
HOMODIHYDROCAPSAICIN

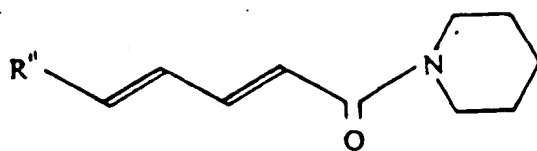
HOMOCAPSAICIN

NONANOIC ACID VANILLYLAMIDE

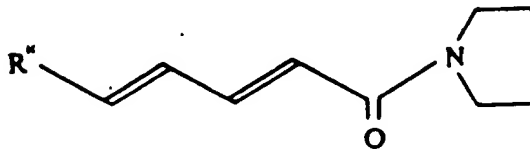
DECANOIC ACID VANILLYLAMIDE

## CAPSAICINOIDS

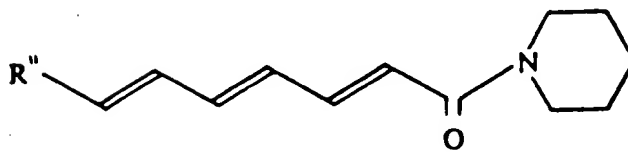
FIG. 6PIPERIDINE  $(CH_2)_5NH$ FIG. 7



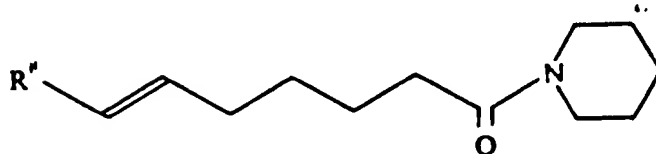
PIPERINE



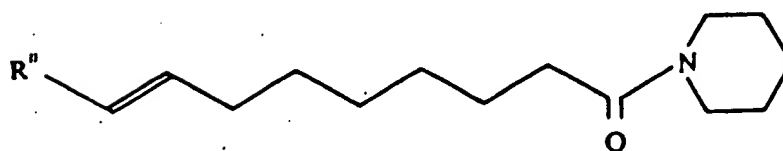
PIPERYLINE



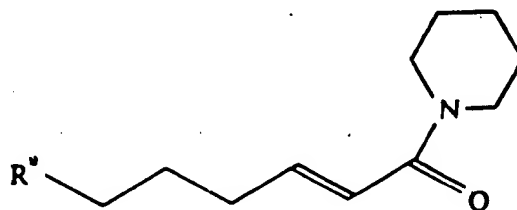
PIPERETTINE



PIPEROLEIN A

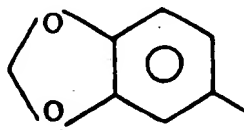


PIPEROLEIN B



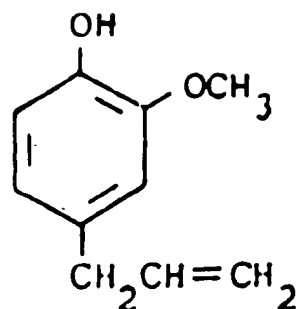
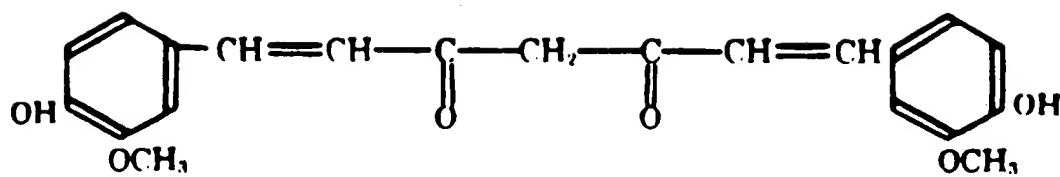
PIPERANINE

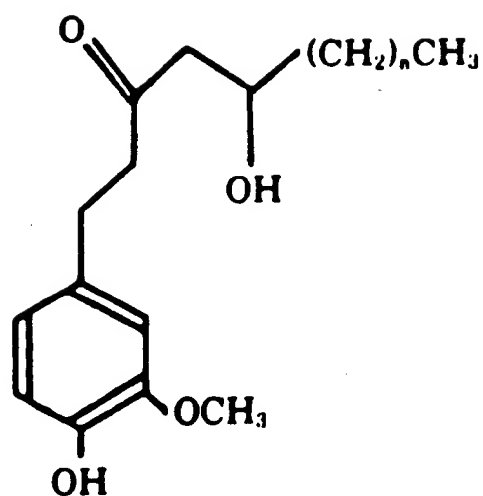
where R'' =



PUNGENT ALKALOID PRINCIPALS OF PEPPER

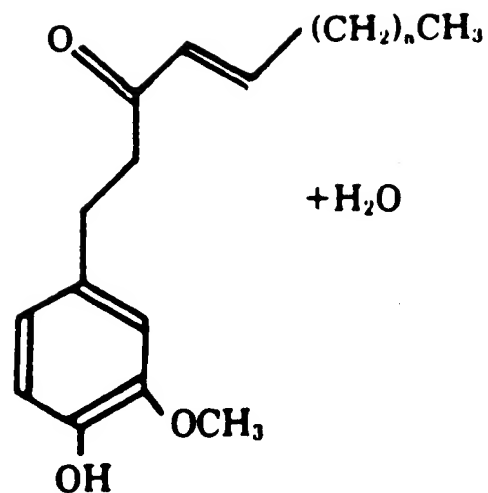
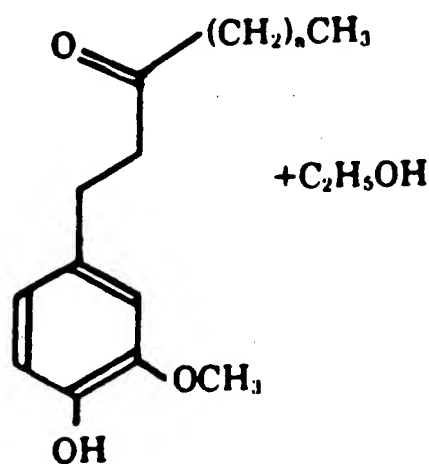
FIG. 8

EUGENOL C<sub>10</sub>H<sub>12</sub>O<sub>2</sub>FIG. 9CURCUMIN C<sub>21</sub>H<sub>20</sub>O<sub>6</sub>FIG. 10

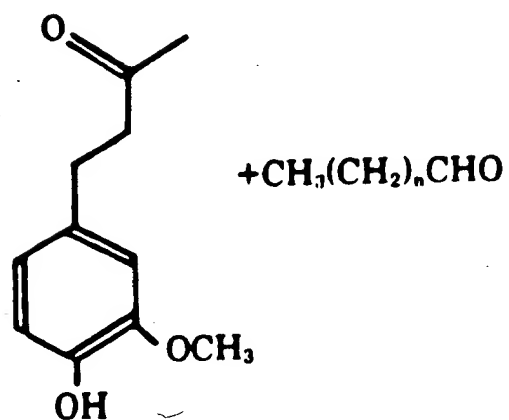


Gingerol

(where n = 4, 6, or 8)

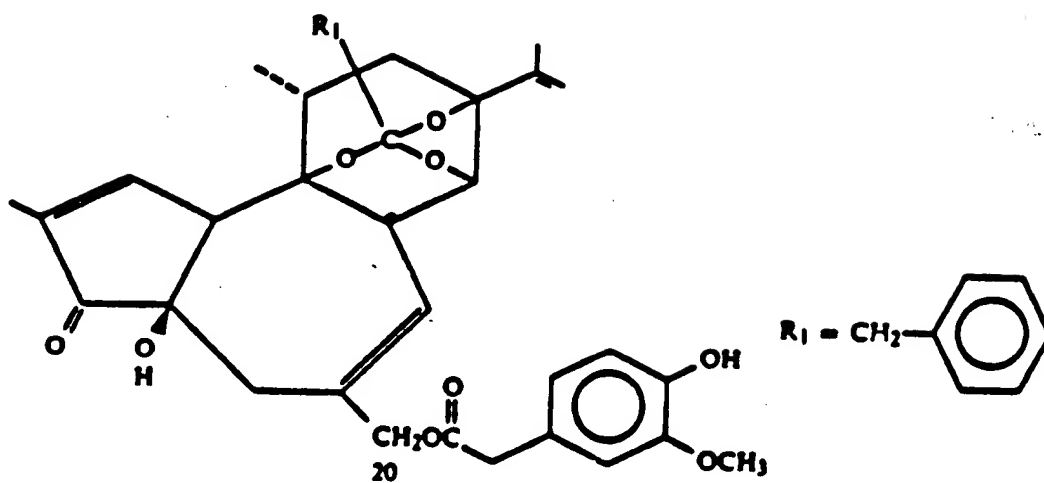
+H<sub>2</sub>OShogaol C<sub>17</sub>H<sub>24</sub>O<sub>3</sub>+C<sub>2</sub>H<sub>5</sub>OH

Paradol

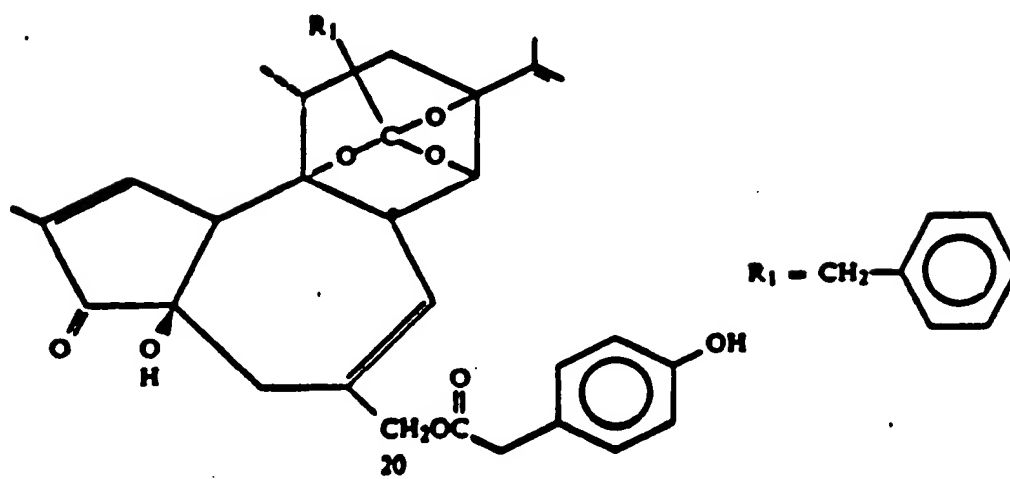
+CH<sub>3</sub>(CH<sub>2</sub>)<sub>n</sub>CHOZingerone C<sub>11</sub>H<sub>14</sub>O<sub>3</sub>

GINGEROLS

FIG. 11



RESINIFERATOXIN

FIG. 12

TINYATOXIN

FIG. 13